UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

WORLDS, INC.,	)))	
Plaintiff,	)))	Civil Action No. 1:12-CV-10576 (DJC)
v.	))	
ACTIVISION BLIZZARD, INC., BLIZZARD ENTERTAINMENT, INC. and ACTIVISION PUBLISHING, INC.,	))))	
Defendants.	)))	

ACTIVISION BLIZZARD, INC., BLIZZARD ENTERTAINMENT, INC.
AND ACTIVISION PUBLISHING, INC.'S
REPLY CLAIM CONSTRUCTION BRIEF

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I.   INTRODUCTION

Worlds, Inc. ("Worlds") seeks to have its claims cover more than what has been invented

and disclosed in the patents-in-suit. Under clear Federal Circuit precedent, however, Worlds is

not entitled to claim anything more than the invention disclosed. Thus, to determine the proper

construction for these terms, it is essential to understand the technical disclosure in the patents-

in-suit and distill from the specification what was actually invented.

Worlds' Opening Brief fails to adhere to this critical requirement. To the extent Worlds'

brief discusses the specification, that discussion is generally speculative, inaccurate, and

misleading. Indeed, in its Background discussion of what "the Worlds patents disclose," Worlds

cites to the claims of the patents, not the specification.[1] *See* Worlds' Br. (D.I. 62) at 4-5. It is

axiomatic, however, that it is the specification that discloses the invention, not the claims. *See In*

re Rasmussen, 650 F.2d 1212, 1214 (CCPA 1981) ("Disclosure is that which is taught, not that

which is claimed.").

When the specification is read as a whole, it reveals that the patent is directed to a "highly

scalable" architecture for a virtual world that was intended to address the problem of "crowd

control" – and that the purported invention was the imposition of a maximum number of avatars

for which each client received data. Indeed, Worlds has asserted in this case that the alleged

inventions were conceived of as a solution to "the crowd-control problem." Declaration of

Kathryn Hong ("Hong Decl.") Ex. 15 at 5-6.

The specification thus describes a system where (1) the server sends to the client

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[1]   To provide some context for these claims, it is important to remember that Worlds' patent
claims have been molded throughout the past decade with an eye towards "shaping" them for
assertion against profitable video game companies such as Activision. The practice of filing
continuation patents to obtain such claims is allowed, but only to the extent that the new claims
do not exceed the boundaries of the original invention disclosed.

positions for up to a set maximum number (N) of avatars and (2) the client selects up to a set maximum number (N') of avatars to display. It is no surprise that the claims are and should be directed to these very features. Nevertheless, Worlds seeks to improperly enlarge the scope of the claims far beyond this invention by either proposing overly broad constructions, or, in most cases, refusing to construe the claims at all. By leaving the claims undefined, Worlds hopes to free itself so that it may read the claims in whatever way necessary to cover Activision's accused products.

Contrary to Worlds' characterization of the law, claim terms that contain words that are "common" or "easy to understand" often require construction by the Court. The goal of claim construction is to understand the ordinary meaning of a term through the eyes of a person of ordinary skill in the art, not through the eyes of a lay person. Many times, it is precisely the most common or simple claim terms that need construction because such terms might have a broader or different meaning when read without the context of the specification and prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005) (*en banc*) ("The problem is that if the district court starts with the broad dictionary definition in every case and fails to fully appreciate how the specification implicitly limits that definition, the error will systematically cause the construction of the claim to be unduly expansive.").

Indeed, "in many cases, the meaning of a claim term as understood by persons of skill in the art is not readily apparent." *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008). In such cases, a finding that "no construction is necessary" defies the very purpose of claim construction, which is to "determin[e] the meaning and scope of the patent claims asserted to be infringed." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*), *aff'd* 517 U.S. 370 (1996). The Federal Circuit has thus held that

a determination that a claim term "needs no construction" or has the "plain and ordinary meaning" might be inadequate when the ordinary meaning is unclear or when it does not resolve the parties' dispute. *O2 Micro*, 521 F.3d at 1361-62 (reversing the district court's finding that no construction was necessary for the term "only if" because this did not resolve the parties' dispute over the proper claim scope).

Such is the case here. The ordinary meanings of the disputed claim terms are unclear if they are not construed. In fact, Worlds does not even attempt to explain what the ordinary meanings are for many of these terms, leaving Activision[2] and the Court to guess at what these terms mean. Worlds should not be allowed to bypass claim construction so that it may interpret these claims however it wants in arguing infringement. Activision submits that Worlds' position that "no construction is necessary" is simply inadequate and should be rejected.

On the other hand, Activision's proposed constructions seek to explain what these claim terms mean to one of ordinary skill in the art in light of the patents' disclosures. Activision's constructions are firmly based on the specification and stay true to the claim language. For the reasons set forth herein and in Activision's Opening Brief, Activision respectfully requests that the Court adopt Activision's proposed constructions.

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[2]   "Activision" refers to defendants Activision Blizzard, Inc., Blizzard Entertainment, Inc. and Activision Publishing, Inc.

II.   THE PROPER CONSTRUCTION OF THE DISPUTED TERMS

A.   "DETERMINING, FROM THE RECEIVED POSITIONS, [A/THE] SET OF THE OTHER USERS' AVATARS THAT ARE TO BE DISPLAYED"

Claim Language	Relevant Claims	Proposed Constructions
determining, from the received positions, [a/the] set of the other users' avatars that are to be displayed	'690 Claims 1-5, 11-14, 19	**Activision** – selecting [a/the] set consisting of up to a set maximum number of the other users' avatars to be displayed based on the received positions
		Worlds – No construction necessary
See Appendix B to Activision's Opening Claim Construction Brief (D.I. 63) for a complete list of all variations of this claim term.		

The step of "determining" appears, for example, in '690 Claim 1. Claim 1 requires two steps that are both performed by the client process:

(a) receiving a position of less than all of the other users' avatars from the server process; and

(b) determining, from the received positions, a set of the other users avatars that are to be displayed to the first user,

Worlds' brief does not provide any guidance as to the meaning of the "determining" step. Worlds does not explain what this limitation means nor does Worlds cite any passages from the specification that explain how the step of "determining" is accomplished. Instead, Worlds simply declares that there is a heavy presumption that claim terms carry their ordinary and customary meaning, without ever hinting at what that meaning is, or how it is supported by the specification. Worlds' Br. at 6-11.

Activision, in contrast, has sought to understand what the inventors meant by the word "determining." Significantly, the word "determining" (and cognates thereof) is not used in the specification in the manner in which it appears in the claims. As explained in Activision's Opening Brief (D.I. 63 at 17-18), however, the specification discloses only one possible action that relates to the "determining" step – that is, selecting a set consisting of up to a set maximum

number of the other users' avatars to be displayed based on the received positions. *See* '690

patent at 6:6-8 ("[w]here N' is less than N, *the client* also *uses position data to select N' avatars*

from the N avatars provided by the server."); *see also* '690 patent at 5:37-40 ("Client 60 also

maintains a variable, N', which might be less than N, which indicates the maximum number of

avatars client 60 wants to see and/or hear."). This is the only disclosure that remotely relates to a

client using positions to determine which avatars to display. Accordingly, the only reasonable

conclusion is that the term "determining" in the claims refers to this process whereby the client

selects up to a set maximum number of avatars that are to be displayed. As set forth in

Activision's Opening Brief, such a construction is consistent with and supported by the language

of the claims.

Activision's proposed construction is further supported by the prosecution history.

Activision agrees that it is proper to "adopt a definition that is different from the ordinary

meaning when the patentee acted as his own lexicographer." *See* Worlds' Br. at 6-7. During

prosecution of the parent of the '690 patent, the applicants explained that "determining" required

limiting the number of avatars displayed[3]:

> Claim 8 is allowable over Shiio in view of Newsbyte because the two references
> fail to disclose or suggest, either alone or in combination, all the recited claim
> elements of claim 8. *For example, claim 8 includes a "means for determining
> from said list of avatars a set of avatars to be displayed at each client process*,
> wherein said means for determining is located at each client process." *Thus, each
> target client limits the number [of] avatars displayed at that target client* based
> on, for example, target client processing capacity."

Hong Decl. Ex. 7 (D.I. 64-7) at 5; *see also* Ex. 6 (D.I. 64-6) at 3. The applicants' assertion that

determining requires limiting the number of avatars displayed is consistent with the

specification's disclosure of selecting N' avatars to be displayed. It is also consistent with

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[3]   As discussed in Section II.C ("Programmed to Limit …"), the ordinary meaning of
"limiting the number" requires restriction to a maximum number.

Activision's proposed construction.

Worlds' assertion that Activision's proposed construction "reads out part of a preferred embodiment" because it does not apply to the situation when N' is equal to or greater than N is incorrect. *See* Worlds' Br. at 7-8. To the contrary, Activision's proposed construction applies equally to this scenario: when N' is equal to or greater than N – the client must still select a set consisting of up to a set maximum number (i.e., N') of the other users' avatars to be displayed. The value of N' merely sets the maximum number of avatars to include in the set of avatars to be displayed. When N' is greater than or equal to N, the client will select up to N avatars (which is the same group of avatars it has received position information for from the server). In this circumstance, the client selects less than the maximum number N', which is consistent with Activision's construction requiring selection of ***up to*** a set maximum number to include in the set to be displayed. Whether N' is equal to or greater than N does not preclude the selection of up to a set maximum number of avatars to be displayed.

Further, contrary to Worlds' assertions (*see* Worlds' Br. at 8-9), Claim 4 of the '690 patent is in complete alignment with and actually supports Activision's proposed construction. While Claim 1 covers a variety of ways to select up to a set maximum number of avatars to display, Claim 4 requires a specific way of selecting that involves the comparison of an actual and maximum number.[4] Because Claim 1 can be practiced without making any comparison between an actual and maximum number (e.g., by selecting the first N' avatars for which position data is received and ignoring the rest), Claim 1 is broader than Claim 4. Even so, "the doctrine of claim differentiation does not serve to broaden claims beyond their meaning in light

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[4]   As with many of the other limitations found in the asserted claims, the specification does not disclose any specific steps for selecting up to a set maximum number, including the steps described in Claim 4. The specification only generally discloses that the client may select up to a set maximum number (N') of the other users' avatars to be displayed.

of the specification, … and does not override clear statements of scope in the specification and the prosecution history." *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1302 (Fed. Cir. 1999); *see also Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1337 (Fed. Cir. 2011).

In addition, Worlds' assertion that N and N' are "variables" and thus do not represent "a set maximum number" makes no sense. *See* Worlds' Br. at 10. As cited by Worlds, the specification clearly states that the "variable *N* … *sets the maximum number* of other avatars A will see" and that the "variable, *N'* … *indicates the maximum number* of avatars client wants to see and/or hear." '690 patent at 5:36-40; *see also* 5:55-57 ("Generally, the limit *set* by server 61 of N avatars and the limit *set* by client 60 of N' avatars control how many avatars A sees."). N and N' are undoubtedly variables that represent a set maximum number. To say that because N and N' are variables they cannot represent a set maximum number is a *non sequitur*. Obviously, for the system to work N and N' must at some point be assigned actual values (i.e., definable numbers, such as N = 2). They are simply referred to as variables because their value can be set to whatever number is appropriate for the system. The patent specification itself expressly states that N and N' are variables that have been assigned values. *Id.* at 5:40-41 and 5:57-58. Moreover, Activision's proposed construction is not selecting up to a "fixed, hardcoded numerical value" as Worlds suggests. *See* Worlds' Br. at 10. A client may choose to change the value of N' by setting a new value.

Lastly, Worlds misleads the Court in asserting that the "concept of a 'maximum number'" is only a "simple example[] of how crowd control may be accomplished" and that crowd control may be accomplished without a maximum number using other methods "including (among others), proximity, user ID, orientation, strain on computing resources, local user selection, or any other participant condition." Worlds' Br. at 11. The specification does not

teach this. The following passage referenced by Worlds does *not* teach that crowd control can be performed without a maximum number:

> Also, where N or more unfriendly avatars are in close proximity to A's avatar and they persist in following A's avatar, A will not be able to see or communicate with other, friendly avatars. To prevent this problem, user A might have a way to filter out avatars *on other variables in addition to proximity*, such as user ID.

'690 patent col. 5:62-67 (emphasis added). This portion of the specification teaches that if there are N or more unfriendly avatars in close proximity to A's avatar, user A will not be able to see or communicate with friendly avatars. This is because the server will send to user A positions for only the N nearest avatars (who in this example are all unfriendly). Thus, "[t]o prevent this problem," the specification teaches that "other variables in addition to proximity, such as user ID" might be used to select the N nearest avatars, so that user A would be able to receive position data for friendly avatars. In sum, the specification teaches that it is possible to use criteria in addition to proximity to select up to a set maximum number of avatars.

In addition, '690 patent col. 6:6-8 exemplifies the point that factors such as proximity, user ID, etc. are merely additional criteria used in selecting the maximum number of avatars. That passage states that "[w]here N' is less than N, *the client also uses position data to select N' avatars* from the N avatars provided by the server." Thus, in selecting N', the client must use additional criteria (in this case, position data) to decide which of the N' avatars should be selected for display. Without the additional criteria, the selection of N' avatars would otherwise be random. Worlds cannot avoid the words used in the specification that describe what was actually invented by the patentees.

For these reasons and the reasons stated in Activision's Opening Brief, Activision submits that its proposed construction most naturally aligns with the meaning of this term as used in the specification and prosecution history, and thus, should be adopted.

B.   "POSITION OF LESS THAN ALL OF THE OTHER USERS' AVATARS"

Claim Language	Relevant Claims	Proposed Constructions
position of less than all of the other users' avatars	'690 Claims 1-20; '558 Claims 4-9; '856 Claim 1; '501 Claims 1-8, 10, 12, 14-16; '998 Claims 1-3, 7-8, 11-20	**Activision** – positions for up to a set maximum number of the other users' avatars, which is less than the total number of other users' avatars
		Worlds – No construction necessary
See Appendix B to Activision's Opening Claim Construction Brief (D.I. 63) for a complete list of all variations of this claim term		

Every asserted claim requires that the client receive a position of less than all of the other users. Although the term "less than all" does not appear in the specification, the patent discloses only one way in which a client receives a "position of less than all of the other users' avatars" – by receiving "positions for up to a set maximum number of the other users' avatars, which is less than the total number of other users' avatars." Indeed, as is evident from Worlds' Opening Brief, Worlds cannot point to a single disclosure in the patent where a client receives "less than all" positions in another way. For this reason, Activision's proposed construction should be adopted.

The Federal Circuit has made clear that when construing claim terms, "the claims cannot be of broader scope than the invention that is set forth in the specification." *On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.2d 1331, 1340 (Fed. Cir. 2006). Although it is improper to import "extraneous limitations" from the specification into the claims, when a limitation is a necessary and touted feature of the invention, and the only way of practicing the invention that has been disclosed by the patent, that limitation is *not* "extraneous." Rather, in such a circumstance, the specification implicitly defines the scope of the claim term to include that limitation. *See Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1370 (Fed. Cir. 2003) ("[W]here the specification makes clear at various points that the claimed invention is narrower than the claim language might imply, it is entirely permissible and proper to limit the claims.").

Worlds' brief focuses on (1) whether the term "less than all" has been expressly defined

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in the specification and (2) whether any claim scope was disavowed during prosecution. Both

issues are irrelevant. *See* Worlds' Br. at 12-15. Activision's proposed construction does not

depend on an express definition in the specification or a disavowal of claim scope in the

prosecution history.   Rather, Activision bases its construction on the requirement that the

meaning of claim terms must be confined to the invention disclosed in the specification.[5] Such

narrowing constructions are commonly adopted by courts. *See, e.g.*, *Hologic, Inc. v. Senorx,*

Inc., 639 F.3d 1329, 1338 (Fed. Cir. 2011) (limiting a claim term "[b]ecause the specification,

including figures, consistently and exclusively" disclose one embodiment, and "that is clearly

what the inventors of the [patent] conceived of"); *Kinetic Concepts, Inc. v. Blue Sky Med. Group,*

Inc., 554 F.3d 1010, 1019 (Fed. Cir. 2009) (limiting a claim term to avoid "expand[ing] the

scope of the claims far beyond anything described in the specification."); *Abbott GMBH v.*

Centocor Ortho Biotech, Inc., No. 09-cv-11340-FDS, 2011 WL 1791684, at *10-11 (D. Mass.

May 6, 2011) (limiting a claim term because "the Court's definitions of these terms cannot

eliminate the clear constraints of the patent.").

Even so, with regard to Worlds' first argument – that Activision's construction should be

rejected because "less than all" is not expressly defined in the patent – the term "less than all"

does not even appear in the specification. This is further evidence that the patentees did not

invent a system where a client broadly receives positions for "less than all." In any event, the

absence of the term from the specification does not mean that the term should go undefined. To

the contrary, the fact that the term is not used provides all the more reason to carefully review the

specification to understand what the patentees meant by receiving "less than all." Consistently

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[5]   As noted by Judge Plager, "However much desired by the claim drafters, who want
claims that serve as business weapons and litigation threats, the claims cannot go beyond the
actual invention that entitles the inventor to a patent." *Retractable Techs., Inc. v. Becton,*
Dickinson & Co., 653 F.3d 1296, 1311 (Fed. Cir. 2011) (concurring).

and without exception, the specification describes a system where the client receives "less than all" by receiving "positions for up to a set maximum number."

With regard to Worlds' second argument, Worlds' lengthy discussion of the '690 prosecution history is inapposite because Activision does not assert that Worlds' disavowed claim scope during prosecution. The Federal Circuit has stated that "[t]he purpose of consulting the prosecution history in construing a claim is to 'exclude any interpretation that was disclaimed during prosecution.'" *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005). Absent such an express disclaimer, the prosecution history is considered "less useful for claim construction purposes." *Phillips*, 415 F.3d at 1317. In contrast, the "[p]atent specification is always highly relevant to claim construction analysis; it is single best guide to meaning of disputed term, and is usually dispositive." *Phillips*, 415 F.3d at 1315 (citation omitted). In this case, the portions of the prosecution history cited by Worlds do nothing more than repeat the language of the claims. There are no statements that explain how the inventors understood the patent, nor is there any express disclaimer by the applicants. Thus, the prosecution history is essentially irrelevant to the understanding of this term and, in any event, cannot be used to contradict what is disclosed in the specification. Moreover, nothing in the language cited by Worlds is inconsistent with Activision's construction of this term.

Worlds also makes highly conclusory statements that Activision's proposed construction is "untethered to (and in many ways, expressly contrary to) language from the patents' claims, specifications, or prosecution histories." Worlds' Br. at 12. Notably absent from Worlds' Opening Brief are any citations to portions of the specification that are purportedly contrary to Activision's proposed construction. The reason for this is plain. The intrinsic evidence fully supports and, indeed, mandates Activision's proposed construction.

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As noted in Activision's Opening Brief, the patents-in-suit tout the ability of the invention to solve the "tougher problem" of "crowd control," and explain that handling "crowd control" requires sending to the client positions for up to a set maximum number (N) of avatars:

> ***Crowd control is one of the tougher problems solved by the present system.*** Crowd control is handled using a number of commands. In a typical situation, the number of avatars in a room is too large to be handled by client 60 and displayed on display 122. ***The maximum number of avatars, N, is determined by server 61***, but might also be determined for each client.
>
> ***Server 61 addresses this problem by maintaining, for each user, a list of the N avatars nearest to the location of that user's avatar.***
> …
> ***This process of notifying client 60 of only the N nearest neighbors is handled as part of crowd control***.

'690 patent at 13:23-32, 14:48-49 (emphasis added).   These statements make clear that the process of the server sending to the client up to a set maximum number (N) of avatars is required to perform crowd control. When the feature in question is described as an "advantage and distinction of the invention," this weighs in favor of limiting the claim scope to include that feature. *On Demand Machine Corp.*, 442 F.3d at 1340; *see also Toro*, 199 F.3d at 1301.

If Activision's proposed construction is not adopted, the claims could cover any system where a client receives "less than all" positions, regardless of how this is achieved. There is ***no support whatsoever*** in the specification for claims of such sweeping scope. Contrary to Worlds' assertion, Activision does not seek to import extraneous limitations into the claims. Rather, Activision properly interprets the claims in light of the invention disclosed in the patents.

C.   "PROGRAMMED TO LIMIT …"

Claim Language	Relevant Claims	Proposed Constructions
programmed to limit the number of remote user avatars shown on the graphic display	'998 Claims 11-15	**Activision** – programmed to restrict the number of remote user avatars shown on the graphic display to a maximum number of avatars allowed
		Worlds – No construction necessary

Activision's proposed construction seeks to clarify a dispute between the parties over the meaning of "limit the number." Based on both the specification and the ordinary meaning of the term, it is undoubtedly clear that "limit the number" should be construed to mean "restrict the number … to a maximum number … allowed."[6] Worlds, however, once again seeks to broaden this term to eliminate the "maximum number" requirement from the claim.

The additional criteria set forth in each of '998 Claims 11-15 (i.e., limiting the number of avatars based on "proximity," "orientation," "computing resources," "a selection made by the local user," and "a selection [that is] independent of the relative position …") are just that – *additional criteria*. These additional criteria do not eliminate the term "limit the number" from the claims. Rather, they specify the way in which the first processor restricts the number of remote user avatars shown on the graphic display to a maximum number allowed. Worlds incorrectly describes these features as "filtering criteria." Had Worlds intended to avoid the imposition of a "maximum number" limitation, Worlds could have used the phrase "programmed to *filter* remote user avatars" rather than "programmed to *limit the number* of remote user avatars." In fact, Worlds used the term "filter" with respect to other claims, but chose to use the term "limit the number" for these claims. *See, e.g.*, '501 Claim 2. The ordinary meaning of the phrase "limit the number," unlike "filter," imposes a maximum number limit that Worlds should not be able to circumvent. The specification confirms this understanding ('690 patent at 5:55-58), and Worlds provides no intrinsic evidence demonstrating otherwise.

To provide additional context, '998 Claims 11-15 do not include the "determining" limitation found in the claims of the other four patents-in-suit (*See* Section II.A above). Thus,

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[6] Worlds raises an issue where none exists with regard to the word "restrict." *See* Worlds' Br. at 16. Activision does not propose that "limit" means "restrict," rather Activision proposes that "limit the number" should be construed to mean "restrict … to the maximum number … allowed."

the '998 patent claims the feature of having the client restrict the number of avatars shown to a

maximum number allowed using different terminology. The consistency of these concepts is

confirmed in the prosecution history which equates the term "determining" with "limiting the

number." Hong Exs. 6, 7. Moreover, a synonym of the term "limit" is "determine," as indicated

in the thesaurus cited by Worlds. (D.I. 62-10, Ex. J).

For all of the foregoing reasons, Activision's proposed construction should be adopted.

D.   "CLIENT PROCESS" / "SERVER PROCESS"[7]

Claim Language	Relevant Claims	Proposed Constructions
client process	'690 Claims 1-20; '558 Claims 1-9; '856 Claim 1	**Activision** – a program being executed by a user's computer that receives services from a server
		Worlds – a program executed, stored, or accessible on a user's computer to provide access to a server
server process	'690 Claims 1-20; '558 Claims 1-7; '856 Claim 1; '501 Claims 1-8, 10, 14-16	**Activision** – a program being executed by a computer that provides services to a client
		Worlds – a program executed, stored, or accessible by one or more computers that provide one or more services to users of computers across a network

With regard to the parties' disagreement over the term "process," the below passage cited

by both parties clearly supports Activision's proposed construction.

> A person of ordinary skill in the art of computer programming will also understand that <u>where a process is described</u> with reference to a client or server, ***that process could be a program executed by a CPU*** in that client or server system and the <u>program could be stored in a permanent memory, such as a hard drive or read-only memory (ROM), or in temporary memory, such as random access memory (RAM)</u>.

'690 patent at 4:25-31 (emphasis added). The phrase that is bolded and italicized above states

that a "process could be a program executed by a CPU." The portion underlined above (as relied

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[7]   Activision's Opening Brief cited Worlds' original proposed constructions for these terms, however, Worlds submitted different proposed constructions to the Court in its Opening Brief. For clarification and reference, Revised Appendix A (attached below) reflects the parties' current proposals.

on by Worlds) merely states that "the program could be stored in a permanent memory." *See* Worlds' Br. at 18-19. The use of the term "*the* program" rather than "*a* program" cuts against Worlds' argument, because "the program" is meant to reference *the program* in the previous description of "process." Activision does not dispute that the program could be stored in memory. However, the term "process" still requires that the program is being executed by a CPU.

Furthermore, the use of the term "process" in the claims makes abundantly clear that "a program stored" is something completely different from a "process." For example, '558 Claim 4 references "*a program stored* in [a machine-readable medium]," and then continues on to say that "the *program* comprises instructions for" the "*client process*" to carry out, including "monitoring … a position," "transmitting … the position," etc. The program is what is stored in memory. The process is the active execution of the program by a computer. This is entirely consistent with the ordinary meaning of the term process. *See* Activision's Br. at 30-31.

As another example, '690 Claim 1 states that "each client process is in communication with a server process." Worlds' proposed construction does not make sense when read in light of this claim because it is impossible for a program merely "stored or accessible on a user's computer" to be "in communication with a server process." In order to be in communication, the client and server processes must be programs being executed by a computer.

E.   "PARTICIPANT CONDITION" / "CONDITION"

Claim Language	Relevant Claims	Proposed Constructions
a participant condition	'501 Claims 1-8, 10, 12, 14-16	**Activision** – a condition set by the client Or, alternatively, Indefinite under 35 U.S.C. § 112, ¶ 2
		Worlds – No construction necessary Or, alternatively, A condition imposed on an avatar, its controlling user, or its associated client device that affects the status or display of an avatar
a condition	'998 Claims 1-3, 7- 8, 11-18, 20	**Activision** – a condition set by the client Or, alternatively, Indefinite under 35 U.S.C. § 112, ¶ 2
		Worlds – No construction necessary Or, alternatively, An expression in a software program that affects the status or display of an avatar

Remarkably, despite the fact that "participant condition" does not appear anywhere in the specification, Worlds argues that "the use of the terms 'condition' and 'participant condition' in the claims ***and common specification*** is consistent with the plain and ordinary meaning of those terms." *See* Worlds' Br. at 22 (emphasis added). This is exemplary of Worlds' approach to claim construction. Despite acknowledging that the specification "'is the single best guide to the meaning of a disputed term,'" Worlds simply reads the claims in isolation without any regard at all for how they relate to the specification. *See* Worlds' Br. at 2. There is no support in the specification for "participant condition" to be construed to mean "[a] condition imposed on an avatar, its controlling user, or its associated client device," as Worlds contends. And the term "condition" is not defined anywhere in the specification or claims to mean "[a]n expression in a software program."

Activision submits that "condition" and "participant condition" should be construed to

mean "a condition set by the client" because those are the only "conditions" contemplated by the specification. As explained in Activision's Opening Brief, the claims require that "at least some" of the avatars for which a client does not receive positions fail to satisfy a participant condition. Thus, the "condition" must be an additional filter used by the server in addition to the set maximum number. The only such "conditions" described in the patent are those that are set by the client. *See* Activision's Br. at 20-24. In fact, the only portion of the specification cited by Worlds in connection with these terms expressly states that "user A," i.e., the client, "might have a way to filter out avatars on other variables in addition to proximity, such as user ID.'" *See* Worlds' Br. at 22 (citing '690 patent at 6:3-5).

The terms "condition" and "participant condition" are hopelessly ambiguous unless some meaningful restriction is placed on their scope. The Federal Circuit's recent decision in *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303 (Fed. Cir. 2011) is instructive with regard to this issue. In that case, the Federal Circuit held that the term "based on ***a condition*** coupling an incoming call to the operator terminal" was indefinite. *Id.* at 1315 (emphasis added). The *Katz* Court explained that:

> Computers can be programmed to conditionally couple calls in many ways.
> Without any disclosure as to the way Katz's invention conditionally couples calls,
> the public is left to guess whether the claims cover only coupling based on
> particular system conditions, such as the availability of an operator, or are broad
> enough to cover any coupling in conjunction with an if-then statement in source
> code. Katz's claims therefore fail to fulfill the "public notice function" of 35
> U.S.C. § 112 ¶ 2 by "particularly point out and distinctly claiming" the invention.

Id. The Federal Circuit thus found that an unbounded set of "conditions" related to a computer-based system was indefinite.

Fundamentally, the ambiguity of the terms "condition" and "participant condition" exists because they are part of a claim limitation that is written in functional terms, *e.g.*, "the client device does not receive position information of at least some avatars that fail to satisfy a

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participant condition imposed on avatars displayable on a client device display."   Although

functional claiming is permissible, "[w]hen a claim limitation is defined in purely functional

terms, the task of determining whether that limitation is sufficiently definite is a difficult one that

is highly dependent on context (e.g., the disclosure in the specification and the knowledge of a

person of ordinary skill in the relevant art area)." *Halliburton Energy Servs., Inc. v. M-I LLC*,

514 F. 3d 1244, 1255 (Fed. Cir. 2008). To resolve the ambiguity in the claim and determine the

range of conditions that ought to be encompassed, it is imperative to understand how this term

relates to what was disclosed in the specification. Worlds' proposed constructions seek to leave

the claim boundless and if adopted would render the claims indefinite. Activision's proposed

constructions, on the other hand, seek to tie the claims to the invention that was disclosed.

Although the specification gives only a few examples of conditions that may be imposed

on avatars displayable on a client device display, Activision does not seek to limit the types of

conditions that may be used. To the contrary, the specification contemplates that the client

"might have a way to filter out avatars *on other variables* in addition to proximity." '690 patent

at 6:3-5 (emphasis added). Activision recognizes this. However, this does not mean, as Worlds

proposes, that the condition may be "set by the client, the server, *or otherwise*." Worlds' Br. at

22 (emphasis added). Such an unbounded range is not supported by the specification. To the

contrary, the specification makes clear that the only "conditions" that are a part of the invention

are those that are set by the client.

F.   "AVATAR"

Claim Language	Relevant Claims	Proposed Constructions
avatar	'690 Claims 1-20; '558 Claims 4-9; '856 Claim 1; '501 Claims 1-8, 10, 12, 14-16; '998 Claims 1-3, 7-8, 11-20	**Activision** – a graphical representation of a user
		Worlds – graphical representation of a user in three-dimensional form

Worlds' argument that '998 Claim 2 (claiming a "three dimensional avatar") supports its proposed construction is perplexing. *See* Worlds' Br. at 24. If Worlds' proposed construction is adopted, Claim 2 of the '998 patent would repetitively cover "a *three dimensional* graphical representation of a user in *three-dimensional form*." Such a construction runs contrary to straightforward claim construction principles that all terms in the claim are assumed to carry meaning so as not to render any words of a claim as superfluous. When Worlds wanted to claim a three-dimensional avatar, it did so. And when it did not want to, it did not.

In addition, Worlds fails to cite critical parts of the specification describing that even avatars referred to as "three-dimensional" are actually comprised of two-dimensional graphics. The specification states that avatars are made of a collection of "two-dimensional panels" and at any given instance, a single two-dimensional panel depicting the avatar is what is displayed on the screen. *See, e.g.*, '690 patent at 7:36-40. This is only embodiment of an avatar that is described in the patent. Worlds' proposed construction refers to graphical representations in "three dimensional form," which could incorrectly be interpreted to exclude the avatars described in the patent, which are formed using two-dimensional graphics. For this additional reason, Worlds' proposed construction should be rejected.

G.   "THIRD USER PERSPECTIVE"[8]

Claim Language	Relevant Claims	Proposed Constructions
third user perspective	'998 Claims 2-18	**Activision** – Indefinite under 35 U.S.C. § 112, ¶ 2
		Worlds – View from the perspective of the user

Worlds' proposed construction of the term "third user perspective" confirms Activision's position that this term is indefinite.[9] As an initial matter, Worlds' proposed construction ("view from the perspective of the user") does not clarify who "the user" is – whether it is "the local user" or "a remote user" (i.e., a third-party user). However, based on the argument in Worlds' Opening Brief, it must be assumed that Worlds' proposal focuses on the view from the perspective of the local user. The passage of the specification relied on by Worlds ('690 patent at 3:18-25) states that Figure 1 shows "the view from the perspective of a third user, D, whose avatar is not shown since D's avatar is not within D's own view." The user, D, in this example, is the local user. Thus, Worlds apparently proposes that "third user perspective" means "a view from the perspective of the local user."

This interpretation, however, directly contradicts Worlds' own reading of the claim in Worlds' Infringement Contentions. D.I. 34 Ex. I at 16-18, 20, Ex. J at 3-4, 6; D.I. 58 Ex. I at 17-19, 21, Ex. J at 5-6, 9-10. Worlds' Infringement Contentions assert that the "third user

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[8]   Activision's Opening Brief indicated that Worlds' position was "no construction necessary," however, Worlds submitted a different proposed construction to the Court in its Opening Brief. For clarification and reference, Revised Appendix A (attached below) reflects the parties' current proposals.

[9]   Worlds insinuates that Activision's indefiniteness arguments are somehow improper because they are purportedly an "invalidity rather than claim construction argument[]." Worlds' Br. at 24-25. The Federal Circuit has made clear, however, that "[a] determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005).

perspective" refers to a remote user's perspective.   Given Worlds' inability to settle on a meaning for this term, it is striking that Worlds now proclaims that "[n]othing about the term 'third user perspective' is ambiguous in light of the clear, precise and detailed description provided in the common Worlds specification." Worlds' Br. at 26. Indeed, Worlds' suggestion that the following passage provides a precise description of the term is deceptive at best:

> FIG. 1 is an illustration of a client screen display 10 seen by one user in the chat system. . . . ***In this example, two users are shown***: "Paula" and "Ken", who have chosen the "robot" avatar and the penguin avatar, respectively. . . . Screen display 10 is the view from the perspective of ***a third user***, D, whose avatar is not shown since D's avatar is not within D's own view.

'690 patent at 3:12-25. Contrary to Worlds' suggestion, the above passage does not purport to define "third user." Rather, it refers to a "third user" simply because it has already referred to a first and second user (*i.e.*, the two users shown in the display). If the figure showed four users, the specification would have said "Screen display 10 is the view from the perspective of ***a fifth user***" and under Worlds' theory, the corresponding claim language would then have had to nonsensically reference a "fifth user perspective."

Furthermore, the claim language itself highlights the fallacy of Worlds' argument:

> switch between a rendering on the graphic display that shows the virtual world to the ***local user*** from a third user perspective and a rendering that allows the ***local user*** to view the ***local user*** avatar in the virtual world.

'998 Claim 2 (emphasis added). The above language makes clear that the patentees claimed a "local user" when they wanted to do so – it makes no sense that the patentees would claim a "third user perspective" instead of simply claiming a "local user perspective." It thus defies logic to believe the patentees intended "third user" to mean "local user," when "local user" appears three times in the same limitation.

As demonstrated by the inconsistency in Worlds' own interpretation of this claim term, and the lack of any ordinary meaning or guidance in the specification, the term "third user

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perspective" is insolubly ambiguous and indefinite.

H.   "A RENDERING IN WHICH ALL OF A PERSPECTIVE VIEW OF A LOCAL USER AVATAR OF THE LOCAL USER IS DISPLAYED"

Claim Language	Relevant Claims	Proposed Constructions
switch between a rendering in which all of a perspective view of a local user avatar of the local user is displayed and a rendering in which less than all of the perspective view is displayed	'998 Claim 19	**Activision** – Indefinite under 35 U.S.C. § 112, ¶ 2
		Worlds – No construction necessary Or, alternatively, Switch between a graphical representation in which all of a local user's field of view is displayed, and a graphical representation in which less than all of a local user's field of view is displayed

Worlds makes many leaps to try to provide an explanation as to what the term "all of a perspective view" means. Such explanations, however, are not supported by the specification. For example, Worlds defines "perspective view" to mean a "view from the perspective of the user" that "incorporates the field of view that the user sees in the virtual world." Worlds' Br. at 27. The specification, however, never uses the term "field of view" nor does it state that a perspective view incorporates the "field of view." Moreover, Worlds' own understanding of a "perspective view" encompasses something more than the "field of view." Thus, "field of view" cannot simply replace the term "perspective view" as Worlds' alternative proposed construction attempts to do.

Even were they supported by the specification, Worlds' explanations do not resolve the ambiguity in these terms. Worlds' alternative construction is indefinite as well, as how does one determine what is "all of the field of view"? Worlds' states that "all of the field of view" means "the full field of view" or "the entire field of view." *See* Worlds' Br. at 28. But even that definition provides no guidance as to the scope of the term. Does that mean a 360-degree field of view? A 180-degree field of view? The maximum field of view setting? Worlds' own

proposed construction further demonstrates that the definition of "all of a perspective view" is purely subjective, and thus should be found indefinite. *See Datamize*, 417 F.3d at 1350 ("The scope of claim language cannot depend solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention.").

I. "SYNCHRONOUSLY DISSEMINATING … POSITIONS"

Claim Language	Relevant Claims	Proposed Constructions
synchronously disseminating … positions	'690 Claims 9, 18, 20	**Activision** – Indefinite under 35 U.S.C. § 112, ¶ 2
		Worlds – No construction necessary Or, alternatively, Transmitting in a manner that is synchronized or coordinated

Because there is no generally understood meaning of the term "synchronous" in the art, and there is no disclosure in the specification to readily ascertain the meaning of "synchronous," this claim term is insolubly ambiguous and thus indefinite.

Worlds' proffered dictionary definitions provide further evidence that the term "synchronously disseminating" is indefinite. The dictionaries cited by Worlds offer numerous incompatible meanings for the term "synchronous." In particular, the *IBM Dictionary of Computing* (D.I. 62-11, Ex. K) provides that "synchronous" could mean:

(1) Pertaining to two or more processes that depend upon the occurrence of specific events such as common timing signals.

(2) Occurring with a regular or predictable time relationship.

And the *IEEE Standard Dictionary of Electrical and Electronics Terms* (D.I. 62-13, Ex. M) provides that "synchronous" could mean:

(1) A mode of transmission in which the sending and receiving terminal equipment are operating continuously at the same rate and are maintained in a desired phase relationship by an appropriate means.

(2) Protocol operation in which only one exchange between a given pair of entities can be handled at any moment in time. The current exchange must complete before the next can be initiated.

(3) Describes an activity specified by a function that is expected to be complete when the function returns.

Thus, "synchronously disseminating" could mean disseminating positions (1) at the same time, (2) at equal time intervals, (3) with a predictable time relationship, (4) upon the occurrence of a specific event, (5) only after a specific activity is completed, (6) at the same rate while maintaining a desired phase relationship, or (7) one exchange at a time.

The ambiguity of the term "synchronously disseminating" would not necessarily render the term indefinite if the specification provided some guidance as to which meaning should be applied here. Unfortunately, the specification tells us absolutely nothing about this term. Worlds' citations to the text of '690 Claim 9 and '690 patent col. 1:42-55 and 3:30-34 merely indicate that there is data communication between a client and server. They do not even mention the term "synchronous," much less explain what is meant by "synchronously disseminating." And '690 patent col. 7:42-49, as discussed in Activision's Opening Brief, makes matters worse. Tellingly, Worlds does not even attempt to explain what this passage means. *See* Worlds' Br. at 29-31. With no guidance in the specification as to the meaning of the term "synchronously," this term is insolubly ambiguous and indefinite. *See Union Pac. Res. Co. v. Chesapeake Energy Corp.*, 236 F.3d 684, 692 (Fed. Cir. 2001) (finding the term "comparing" indefinite because the "precise meaning of the term … is not explained in the written description" and could have had multiple meanings).

III.   CONCLUSION

For the foregoing reasons, Activision respectfully requests that the Court adopt its proposed constructions and reject those proposed by Worlds.

Date: May 6, 2013   Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that this document and all attachments filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and that paper copies will be sent to those non-registered participants (if any) on May 6, 2013.

/s/   *Kathryn N. Hong*
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REVISED APPENDIX A

No.	Claim Term for Construction	Relevant Claims	Activision's Proposal	Worlds' Proposal[*]
1	position of less than all of the other users' avatars[**]	'690 Claims 1-5	positions for up to a set maximum number of the other users' avatars, which is less than the total number of other users' avatars	No construction necessary
2	determining, from the received positions, [a/the] set of the other users' avatars that are to be displayed[**]	'690 Claims 1-5, 11-14, 19	selecting [a/the] set consisting of up to a set maximum number of the other users' avatars to be displayed based on the received positions	No construction necessary
3	a participant condition	'501 Claims 1-8, 10, 12, 14-16	a condition set by the client Or, alternatively, Indefinite under 35 U.S.C. § 112, ¶ 2	No construction necessary Or, alternatively, A condition imposed on an avatar, its controlling user, or its associated client device that affects the status or display of an avatar
4	a condition	'998 Claims 1-3, 7- 8, 11-18, 20	a condition set by the client Or, alternatively, Indefinite under 35 U.S.C. § 112, ¶ 2	No construction necessary Or, alternatively, An expression in a software program that affects the status or display of an avatar

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[*]   Revised Appendix A is a list of the parties' proposed constructions for each of the disputed claim terms that have been submitted to the Court in each party's respective Opening Claim Construction Brief.

[**]   See Appendix B to Activision's Opening Claim Construction Brief (D.I. 63) for a complete list of all variations of this claim term and Activision's proposed construction for each variation.

REVISED APPENDIX A

No.	Claim Term for Construction	Relevant Claims	Activision's Proposal	Worlds' Proposal[*]
5	programmed to limit the number of remote user avatars shown on the graphic display	'998 Claims 11-15	programmed to restrict the number of remote user avatars shown on the graphic display to a maximum number of avatars allowed	No construction necessary
6	avatar	'690 Claims 1-20; '558 Claims 4-9; '856 Claim 1; '501 Claims 1-8, 10, 12, 14-16; '998 Claims 1-3, 7-8, 11-20	a graphical representation of a user	Graphical representation of a user in three-dimensional form
7	client process	'690 Claims 1-20; '558 Claims 1-9; '856 Claim 1	a program being executed by a user's computer that receives services from a server	A program executed, stored, or accessible on a user's computer to provide access to a server
8	server process	'690 Claims 1-20; '558 Claims 1-7; '856 Claim 1; '501 Claims 1-8, 10, 14-16	a program being executed by a computer that provides services to a client	A program executed, stored, or accessible by one or more computers that provide one or more services to users of computers across a network
9	synchronously disseminating … positions synchronously disseminating	'690 Claims 9, 18, 20	Indefinite under 35 U.S.C. § 112, ¶ 2	No construction necessary Or, alternatively, Transmitting in a manner that is synchronized or coordinated
10	third user perspective	'998 Claims 2-3, 7-8, 11-17	Indefinite under 35 U.S.C. § 112, ¶ 2	View from the perspective of the user

REVISED APPENDIX A

No.	Claim Term for Construction	Relevant Claims	Activision's Proposal	Worlds' Proposal[*]
11	switch between a rendering in which all of a perspective view of a local user avatar of the local user is displayed and a rendering in which less than all of the perspective view is displayed	'998 Claim 19	Indefinite under 35 U.S.C. § 112, ¶ 2	No construction necessary Or, alternatively, Switch between a graphical representation in which all of a local user's field of view is displayed, and a graphical representation in which less than all of a local user's field of view is displayed